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HEWLETT
PACKARD

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September 18, 1986

Dr. Gaston Sigur
Assistant Secretary of State
for East Asian and Pacific Affairs
Department of State
Washington, D.C. 20520

Dear Dr. Sigur:

Hewlett-Packard has a great concern, from a growing number of export licensing decisions, that various licensing officers and policy makers at the lower levels are attempting to retrench and even reverse the President's liberalized export policy for the PRC.

One case in point is the delays and denials we face in attempting to export HP64000 Microprocessor Development Systems (MDS) to the PRC. After delays of almost two years, during which we made numerous attempts to resolve these cases, it took contact between our CEO John Young and Secretary Baldrige to produce licenses for several "Green Zone" cases, and for two cases which supported installation of the ITT 1240 telephone switch (a much-heralded Belgian COCOM case eventually approved by the President).

For almost two years we have also been seeking approval of MDS so that the Chinese can develop systems using the Motorola MC68000 16-bit microprocessor chip. We have been notified by Commerce that Defense objects because the MC68000 is a "critical device"; our counter-arguments to this rationale are provided in Enclosure 1. John Young has again written to Secretary Baldrige (Enclosure 2).

We would appreciate your assistance in clarifying and communicating to us the real U.S-PRC policy that should apply to these cases.

Sincerely,

A handwritten signature in black ink, appearing to read "Roger Grossel".

Roger Grossel
Manager, Export Administration

Enclosures

cc: Mr Hank Levine ←

Sep 18, 1986

**Export of HP64000 Microprocessor Development Systems (MDS)
to the PRC (MC68000 Issue)**

DEFENSE OBJECTION

Defense has objected to exports supporting the Motorola 68000 chip, claiming it is a "critical device". They maintain that the MC68000 microprocessor chip is a critical device since it is used in military projects and weapons.

COUNTER-ARGUMENTS TO OBJECTION

1. MC68000 chips are "green zone" and thus not critical. COCOM rules state that microprocessor chips that are 16/32 bits (i.e., 16 bit operand and 32 bit ALU) are "green zone" if the PDR does not exceed 28 Mbits/sec. All of our HP 64000 export applications for the PRC that support MC68000 target systems use an emulator with a maximum clock speed of 12.5 MHz, which results in a PDR of 24. Thus our applications support "green zone" chips, and "green zone" products certainly could not be "critical".

2. Computers with MC68000 chips @ 12.5 MHz are "green zone". Computers with a PDR up to 155 are "green zone" under COCOM rules. Computers with an MC68000 @ 12.5 MHz have a PDR of 24, so they are "green zone". Thus the MC68000 chip itself (@ 12.5 MHz) in a product does not seem "critical".

3. Licensing policy calls for case-by-case review of acceptable end use/end user approvals for the PRC. Section 385.4(c) of the Export Administration Regulations considers exports to the PRC under country groups T & V, with special review for certain commodities, data, and end uses. Exports that would make a direct and significant contribution to nuclear weapons and their delivery systems, electronic and antisubmarine warfare, intelligence gathering, power projection, and air superiority are of particular concern. Licenses may be approved even when the end-user or end-use is military. Commodities or data may be approved for export even though they contribute to Chinese military development. Exports of HP64000s should be approved that are specifically configured for end users and end uses that are not of particular concern. Our applications were not rejected for end use/end user.

4. The MC68000 does not meet Military Standard 1750A, nor does it meet mil specs. There is a strong DoD drive to standardize on the military standard 1750 Instruction Set Architecture. The F9450 is a very popular chip because it is radiation hardened and meets Mil Std 1750A. The MC68000 is not radiation hardened and does not meet 1750A.

5. Computers with an MC68000 chip with clocks up to 12.5 MHz (PDR of 24) are National Discretion. Such computers do not require COCOM referral, and for Eastern Bloc destinations other than for the USSR and Poland, do not require referral to DoD. HP computers such as the 9816 have an MC68000. Commerce has approved numerous 9816s to Eastern Europe, and DoD has approved numerous 9816s to the USSR. We believe that the other COCOM countries also approve numerous MC68000-based computers for Eastern Europe and the USSR.

6. Computers with an MC68000 chip with clocks up to 8 MHz (PDR of 14.9) are National Discretion for up to six computers per transaction ("cumulative total PDR"). We believe that the other COCOM countries routinely approve such exports for Eastern Europe and the USSR.

7. Cross compilers for ALL chips are green zone. With the wide availability of green zone computers and software (especially cross compilers) to the PRC, denial of MDS will not measurably affect PRC ability to develop software.

8. "Dual-use" items should not be denied just because they "could" be used for unacceptable end uses. Denial of a commodity because it COULD be used for "undesired uses" is not a valid argument for denial of "dual-use" (i.e., non-munitions and non-Atomic Energy List) items. Denial of the MC68000 because it is used on some military projects could lead to denial of the pencils used on those projects.

9. "Critical device" is not a COCOM-approved term. COCOM does not use "critical device" in its controls. The COCOM lists control items on the basis of technical control parameters, and (usually) well-defined terms. Denials (and licensing delays) by the United States on the basis of "critical device" consists of a unilateral control on U.S. applicants.

RECOMMENDATION

Commerce should establish new standards for export of MDS to the PRC, considering the factors mentioned above. MDS for chips that meet certain mil specs or MIL STD 1750A, as well as the F9450, M68020, 32010, 80286, 80386, bit-slice chips, and other true 32-bit chips should be approvable for certain end users and end uses.

MDS for commercial 8-bit chips should be G-DEST, and MDS for commercial 16-bit chips, even with 32-bit ALU, should be "Green Zone".

HP's applications for support of the MC68000 should be approved since the only objection is that the MC68000 is a "critical device". Delays and denials based on this factor results in unilateral U.S. controls.